

Object-Oriented Programming Language

09/18/2014

Homework Assignment No. 1

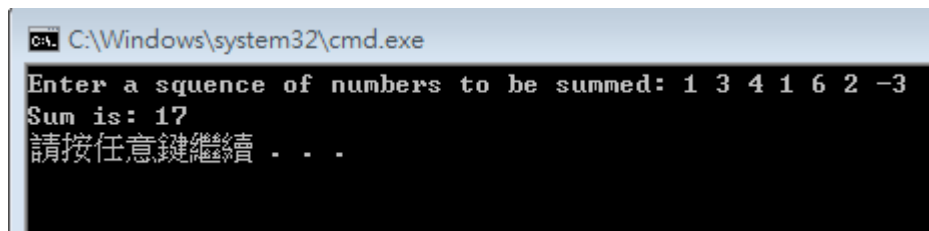
Due 09:00 pm, Wednesday September 24, 2013

Late submission within 24 hours: score*0.9;

Late submission before post of solution: score*0.8 (the solution will usually be posted within a week); no late submission after the post of solution)

(Total 60%)

1. (20%) Read a few of non-negative integers from standard input, use a negative integer to signify the end of inputs and print the sum of these non-negative integers. Below is a sample run



```
C:\Windows\system32\cmd.exe
Enter a sequence of numbers to be summed: 1 3 4 1 6 2 -3
Sum is: 17
請按任意鍵繼續 . . .
```

2. (40%) Download the folder HW1_dist.zip from the course website and unzip the folder. You will find Sales_item.h, a data file book_sales that contains a few book records and a supplementary note on input file stream from my Computer Programming course. To ease your life for now, you can safely assume the records for each ISBN is grouped together.

Write a C++ program to read the transactions from the data file book_sales and output on a screen that shows, for each book, the total number of copies sold, the total revenue, and the average sales price. (**hint**: check (1) the supplementary note given in the HW1_dist.zip and (2) C++ primer pp. 316 if you are not familiar with C++ input file stream)

Your program should ask users to enter the data file name to be processed. It should complain if it cannot find the data file. Two sample outputs look like the following: the first shows the sample that cannot find the file, complain and list the files in the current directory and the second sample does the regular processing successfully.

```

C:\Windows\system32\cmd.exe
Enter the file name: booksSales
Complain: I cannot find the file

磁碟區 C 中的磁碟沒有標籤。
磁碟區序號: 000B-58D8

C:\Users\cschen\Desktop\HW1 的目錄

2014/09/17 下午 05:54 <DIR> .
2014/09/17 下午 05:54 <DIR> ..
2012/08/09 下午 04:24          234 book_sales
2014/09/17 下午 05:54 <DIR>      Debug
2014/09/17 下午 05:36          7,077,888 HW1.sdf
2014/09/17 下午 05:35          979 HW1.sln
2014/09/17 下午 05:54          4,015 HW1.vcxproj
2014/09/17 下午 05:54          955 HW1.vcxproj.filters
2014/09/17 下午 05:44          246 Prob1.cpp
2013/09/30 下午 02:17          1,334 Prob2.cpp
2014/09/16 下午 10:11          4,842 Sales_item.h
           8 個檔案          7,090,493 位元組
           3 個目錄      407,850,426.368 位元組可用
0
請按任意鍵繼續 . . .

```

```







C:\Windows\system32\cmd.exe
Enter the file name: book_sales
Contents of book_sales:
0-201-70353-X 4 99.96 24.99
0-201-82470-1 4 181.56 45.39
0-201-88954-4 16 198 12.375
0-399-82477-1 5 226.95 45.39
0-201-78345-X 5 110 22
請按任意鍵繼續 . . .

```

HW Submission Procedure (請仔細閱讀):

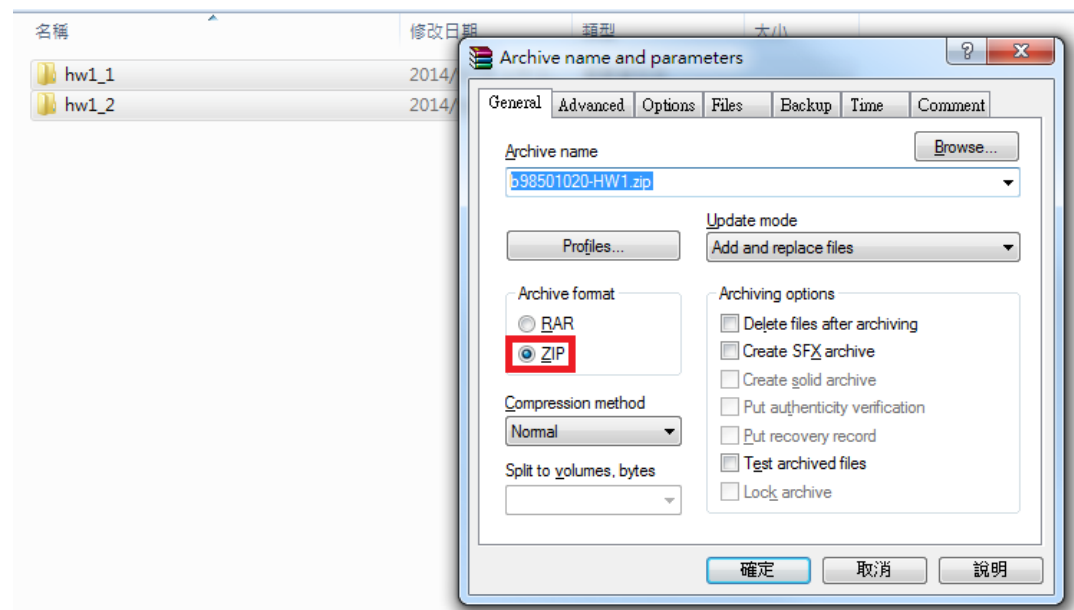
1. You should create an independent Visual Studio 2013 project for each problem. You should submit your project folder, which includes your source codes (header and cpp files), input/output data and Visual Studio 2013 project files. To save space, please delete Debug folder and sdf before submitting your files.

繳交時請以專案資料夾區分每一道題目，資料夾中應包含該題中的每個標頭檔、cpp 檔、所讀取的資料與輸出的結果與 Visual Studio 2013 相關專案檔。繳交前請刪除 Debug 資料夾與 sdf 檔案，以節省空間。

	Debug	2014/9/18 上午 0...	檔案資料夾	
	HW1-Prob1.sdf	2014/9/18 上午 0...	SQL Server Com...	64 KB
	HW1-Prob1.sln	2014/9/18 上午 0...	Microsoft Visual ...	1 KB
	HW1-Prob1.vcxproj	2014/9/18 上午 0...	VC++ Project	4 KB
	HW1-Prob1.vcxproj.filters	2014/9/18 上午 0...	VC++ Project Filt...	1 KB
	Prob1.cpp	2014/9/17 下午 0...	C++ Source	1 KB

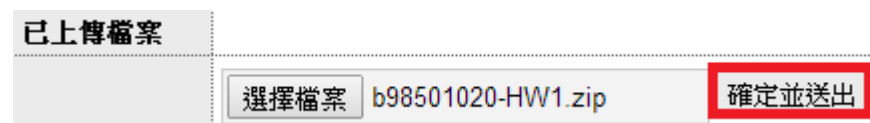
2. You should zip all the files and use your student id to name the zip file (e.g., b98501020-HW1.zip).

將所有檔案及資料夾收納在以學號命名的 zip 壓縮檔中。(例如：b98501020-HW1.zip)



3. Submit your HW directly through the course website.

請直接透過課程網站繳交作業。



HW Grading Policy:

1. You should consider about exception handling, e.g. error input, file opening fail, etc.
請注意所有例外狀況的處理，例如：錯誤的符號字串輸入、檔案開啟失敗等。
2. The coding style includes your output format.
輸出資料的格式將納入格式評分。
3. If your code is not compilable, your score in this problem is zero (including coding style).
若程式無法編譯，則該題以零分計算。(包含格式分數)
4. Your program will be tested with other data which is not the same as provided samples.
除了題目所提供的範例測試資料以外，作業程式碼將以額外的測試資料進行測試。
5. If tricky situations occur, the grade depends on Prof. Chen or TA's judgment.
假如有特殊情況發生，則依據陳俊杉教授以及助教們的判斷給分。

- Coding Style (20%): 編碼格式分數

1. format

整體形式與輸出資料的格式

2. comments

註解

3. readability

可讀性

4. variables naming

變數命名方式

5. typesetting

型別設定

- Functionality (80%): 功能性分數

1. run-time performance:

執行時的表現

1) samples not passed -> x

範例測資錯誤 => 此部分零分

2) samples passed but some tests failed -> partial

範例測資通過但是部分測資失敗 => 部份給分

3) samples and tests all passed

範例測資與所有測資通過 => 此部分滿分

3. excellent method++

綜合以上，又以能展現解決問題的巧思尤佳。